

Country Report Republic of Palau

APT

“Developing fundamental network planning skills to bridge the digital divide in rural areas”

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Switch Technician II, Switch Operations Department
Plant and Technology Division, PNCC



PNCC



Palau National Communications Corporation

OUR MAIN TOPICS TODAY

- Introduction to Republic of Palau
- PNCC Mission & Milestones
- Overview of PNCC Services
- PNCC Infrastructure Priorities
 - Upgrade & Expand Mobile Network to 5G/Open-RAN
 - Fiber (FTTP) for High-Speed, Affordable Broadband
 - Power Infrastructure Upgrade with Hybrid Backup
 - Digital TV System Replacement and Upgrade





Republic of Palau



- Palau is an archipelago of approximately 400 islands located in the western Pacific Ocean.
- Its nearest neighbors are Northern Mariana Islands and Guam to the northeast, Federated States of Micronesia to the east, Papua New Guinea and Indonesia to the south and Philippines to the west.
- Palau's population is approximately 18,210.
- Most of the population is located in the state of Koror.



Republic of Palau

Capitol of Palau, Melekeok



- In 1947, the United Nations appointed the United States to administer Palau as part of the UN Trust Territory of the Pacific Islands.
- Our country became independent in 1994 but the ties with the U.S. are still strong.
- Palau has a developing economy that is small but fairly stable. Palau has the potential for sustainable growth particularly in the areas of tourism and fisheries.
- As ITU's newest member (as of 9/2024), Palau seeks to drive development through digital transformation.
- Palau is an environmental pioneer. We established the world's first shark sanctuary in 2009. There is abundant and diverse marine life. As a result, Palau offers some of the Pacific's finest diving and fishing.

Palau's Natural Wonders



Rock Islands
Southern Lagoon
UNESCO
World Heritage Site

Palau's Natural Wonders

Marine Life and Diving

Palau is one of the most extraordinary diving spots on the planet. Home to more than 1,500 species of fish and 700 species of coral, Palau has consistently been ranked among the best in categories such as “best destination by region”, “best fish life”, “healthiest reefs”, “best big animal diving”, “best wall diving” and “best wreck diving” by the readers of Rodale’s Scuba Diving magazine.



Palau's Natural Wonders

Jellyfish Lake

There is a jellyfish lake on Eil Malk Island in the Rock Islands Southern Lagoon, a UNESCO World Heritage Site. Millions of golden jellyfish migrate across the lake daily. These jellyfish are not poisonous and therefore people can swim with them.



Palau's Natural Wonders

Milky Way

The white mud found in the Milky Way Lagoon in Koror State is magical! Most tourists make sure to take a mud bath in the lagoon so that they can treat their skin naturally without visiting a spa.



Palau's Cultural Wonders

Palau is deeply committed to preserving both its natural resources and cultural heritage. Traditions such as the first childbirth ceremony celebrate our culture. The ancient men's meeting houses (*abai*) are decorated with historic symbols. Skilled artisans create wood carvings about Palauan legends in storyboard format. For more information visit: <https://pristineparadisepalau.com/culture/>



First Childbirth Ceremony



Abai – Men's Meeting House



Storyboard Legend



As ITU's newest member, Palau seeks to drive development through digital transformation.

The Republic of Palau was officially recognized as the 194th Member State of the International Telecommunication Union (ITU) on Sept. 19, 2024.

WHAT IS THE MISSION OF PNCC?

To provide **A**ccess to world-class
communications, **R**esilient Connectivity,
and **E**mpowerment in the Digital Era.
We **ARE** PNCC, We **ARE** Palau, We **ARE** You.





PALAU NATIONAL COMMUNICATIONS CORPORATION

Celebrating 42 Years of Connecting Palau to the World

A BRIEF HISTORY – KEY MILESTONES

1982 – The Beginning

PNCC was established as a public corporation by the Republic of Palau to expand and modernize communications, beginning with 200 telephone customers in the main town of Koror.

1990s – Expansion

With a \$32M loan from U.S. Rural Utilities Service, PNCC expanded and upgraded the fixed line telephone system, and built a domestic fiber network to connect the islands.

2000s – New Services

Internet, Wireless, & DTV services were upgraded. With Palau's international fiber connection in 2017, PNCC introduced huge increases in internet speeds for customers at very affordable rates.



PALAU NATIONAL COMMUNICATIONS CORPORATION

Celebrating 42 Years of Connecting Palau to the World

A BRIEF TIMELINE - KEY MILESTONES

2024-Innovation

PNCC serves over 41,000 subscriptions with LTE mobile data and voice, fixed line Internet, telephone, and digital TV.

- 3G/4G Mobile Data with path to 5G/O-RAN
- Fast Internet via Fiber to the Premise (FTTP)
- Online Services (eShop, payments, directory)
- Direct to Device Coverage for all Palau (D2D)

Republic of Palau Communications Infrastructure

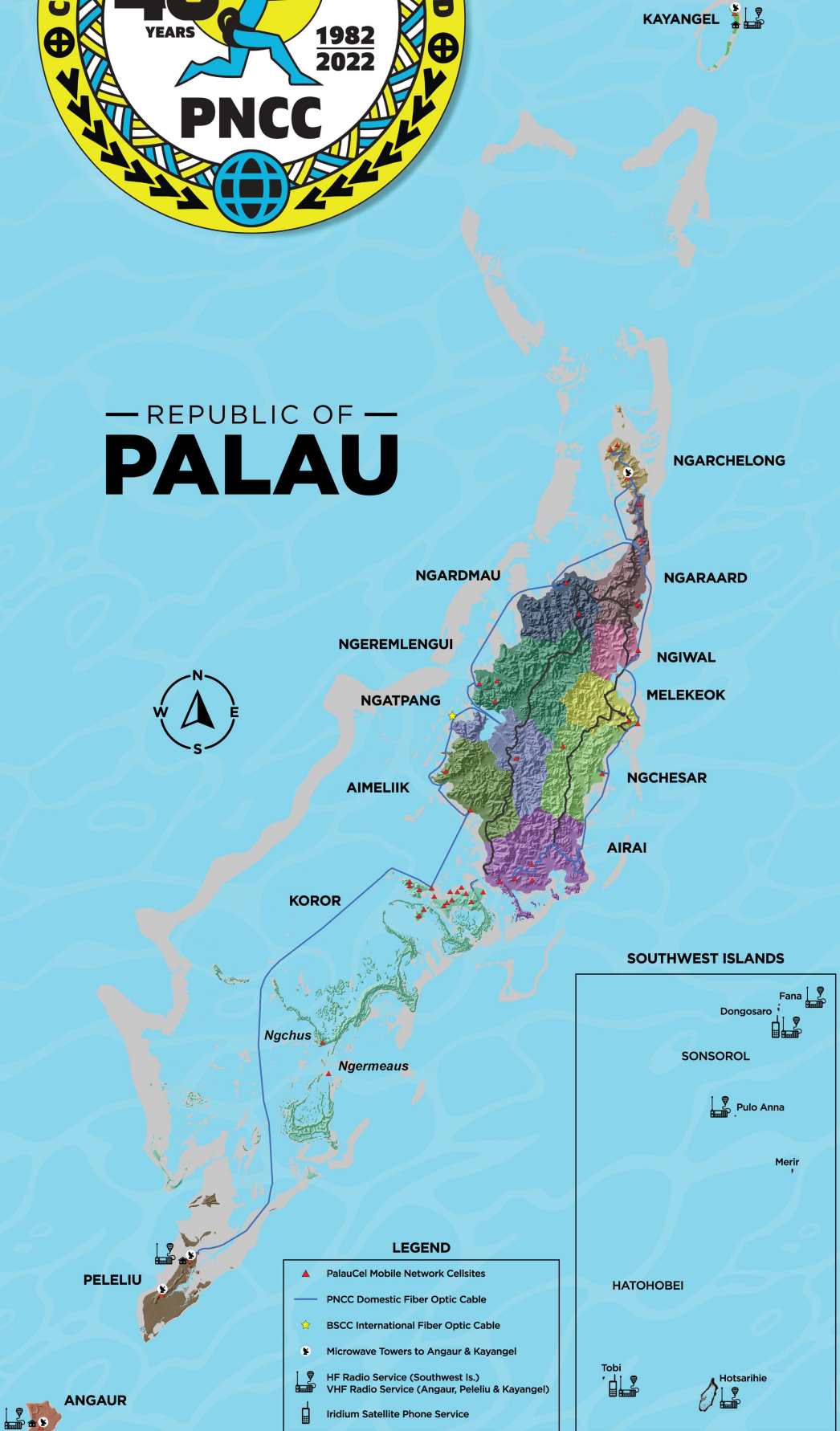
LEGEND

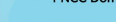
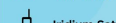
-  PalauCel Mobile Network Cellsites
-  PNCC Domestic Fiber Optic Cable
-  BSCC International Fiber Optic Cable
-  Microwave Towers to Angaur & Kayangel
-  HF Radio Service (Southwest Is.)
VHF Radio Service (Angaur, Peleliu & Kayangel)
-  Iridium Satellite Phone Service



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— REPUBLIC OF —
PALAU



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OVERVIEW OF PNCC SERVICES



Communications Services

Best choice for all your communications

Palau's Only Full-Service Telecom Provider



+680-488-9000



pnccpalau.com



service@pnccpalau.com



@connectingpalau



PNCC

Connecting Palau to the World



FULL-SERVICE COMMUNICATIONS

- High-Speed Fiber Internet
 - LTE Mobile Data and Voice
 - Fixed Line Telephone
 - Digital TV
 - Advertising Options
 - Online Services
-



PNCC SUBSCRIBERS SNAPSHOT

JUNE 2024



Fixed Line Telephone	6,124
Internet	4,761
Mobile Wireless	29,029
Digital TV	1,669
TOTAL	41,581

INTERNET SERVICES



Internet Service

Hi-Speed Internet for Everyone

Palau's Better, Faster Network



+680-488-9000



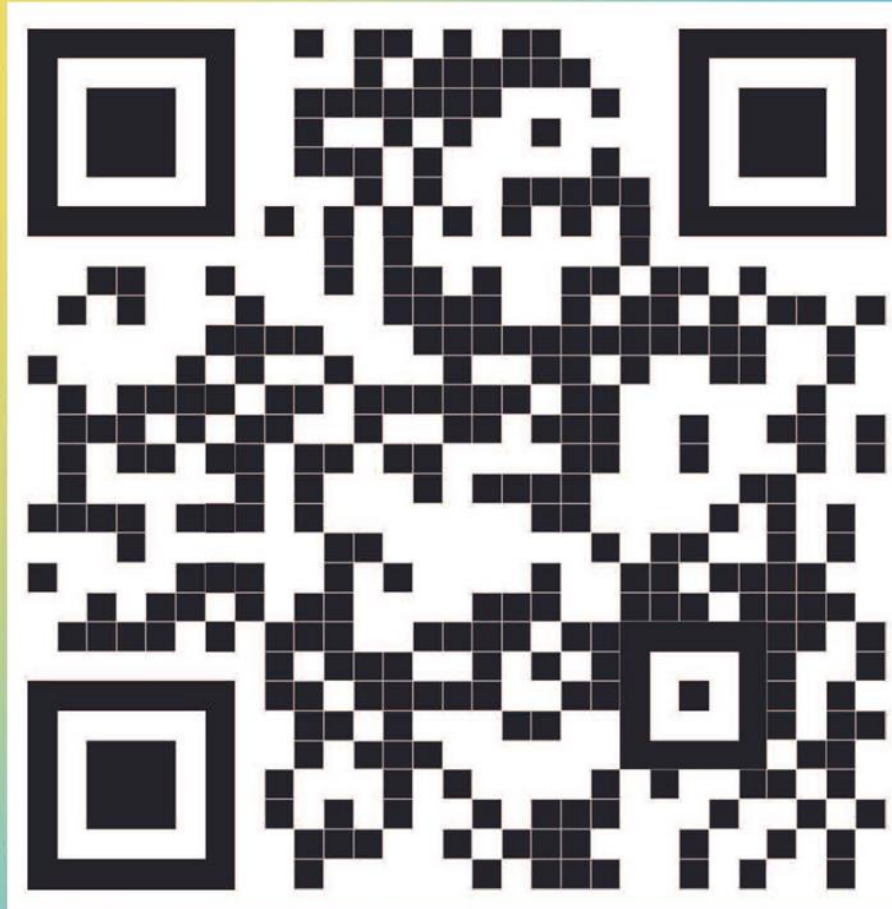
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service@pnccpalau.com



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PNCC

Connecting Palau to the World





Moving at the Speed of Life

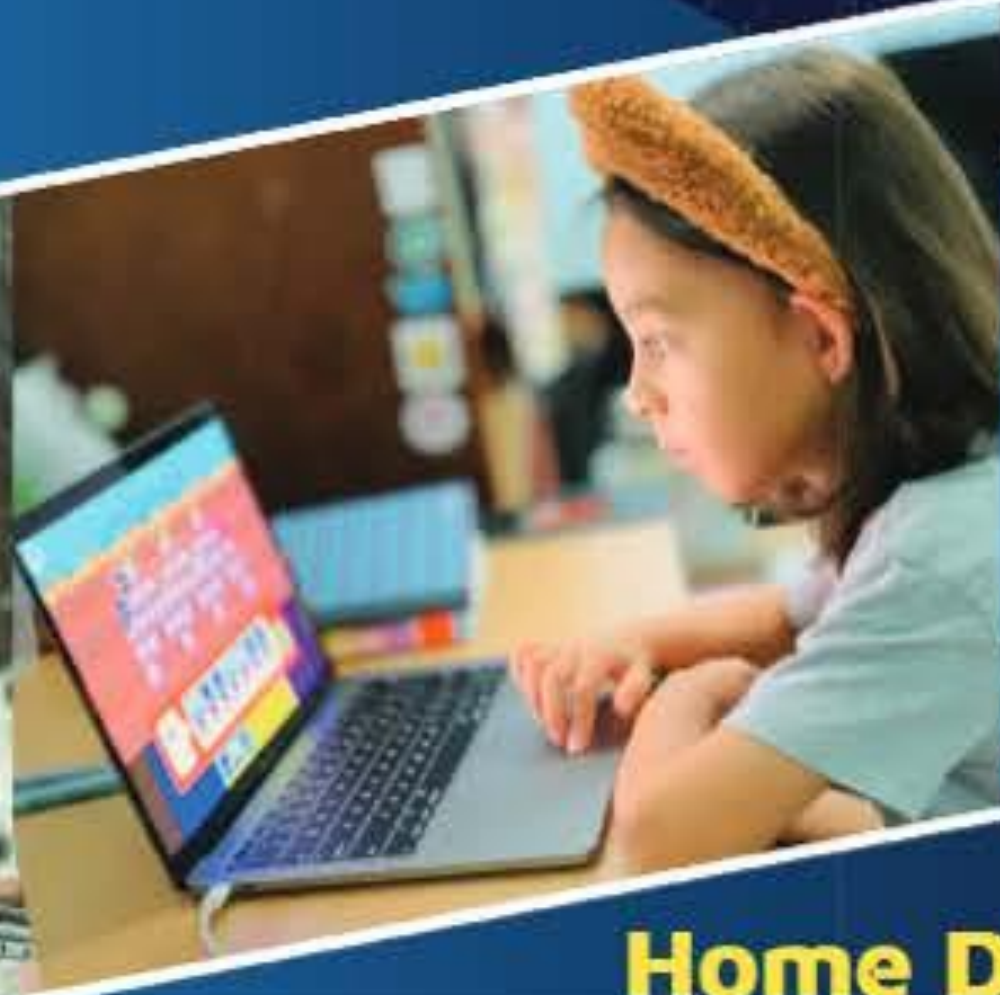
Palau's Largest Fiber Optic Network



www.pnccpalau.com



Mobile Data



Home DSL



**Business
Broadband**



**Premium
WiFi**



+680-488-9000



sales@pnccpalau.com



@connectingpalau

MOBILE WIRELESS SERVICES



Stay Connected in Palau!

  @connectingpalau

Enjoy Palau's Best Mobile Data

Fastest 4G LTE -- Biggest Network Coverage

Prepaid SIM - voice/text/data

International Roaming: 55201

4G Pocket WiFi Rental



Visit PNCC in Koror for Prepaid SIM cards and 4G WiFi Rental.

PNCC

Connecting Palau to the World



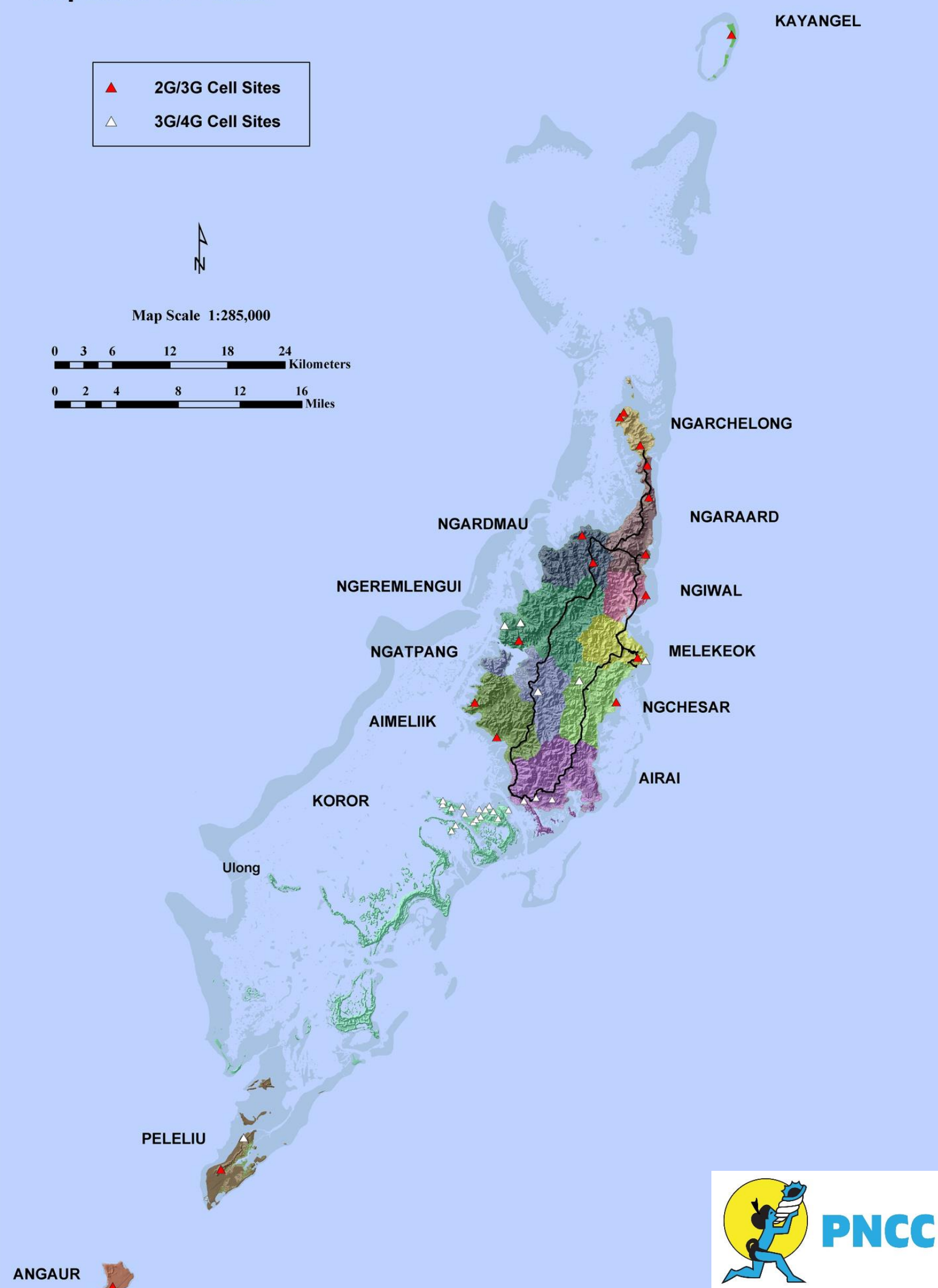
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PNCC Mobile Wireless Service Area

July 2024

50 CELL SITES

All are mobile data-capable

**LTE MOBILE DATA WITH
PATH TO 5G/Open-RAN**

Palau National Commuincations Corporation

DIGITAL TV SERVICES



WELCOME TO THE WORLD OF DIGITAL TELEVISION!

BROUGHT TO YOU BY



PNCC Digital TV

- Established in 1990 as Island Cable TV in Koror and Airai, joint venture with UMDA
- PNCC 100% ownership in 2000
 - Converted to digital system
 - Expanded DTV service to 14 states
- Basic and Premium DTV packages
- Over 65 channels
- Advertising options



Call PNCC
Customer Support

**488-
9000**

for the latest channel line
up and application details.

ONLINE SERVICES



Online Services



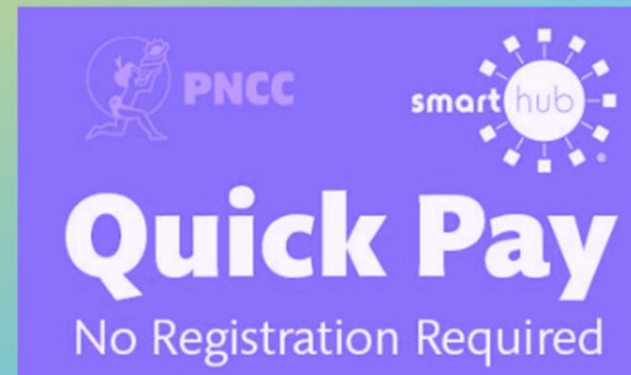
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with our Online Services**
www.pnccpalau.com

BUY ONLINE



Airtime and Internet
Cards Sold Online

PAY ONLINE



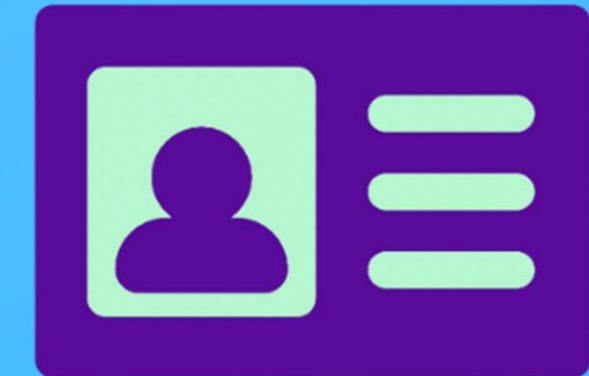
Paperless Billing
anywhere, anytime
on any device
with SmartHub App

TV GUIDE ONLINE



Click on TV Guide
link to see the
schedules for our
most popular
channels

DIRECTORY ONLINE



Search our LIVE
DIRECTORY
DATABASE by
Personal Name,
Business Name or
Number

PNCC UPGRADE PROJECTS





5G



CONNECTING OUR COMMUNITIES

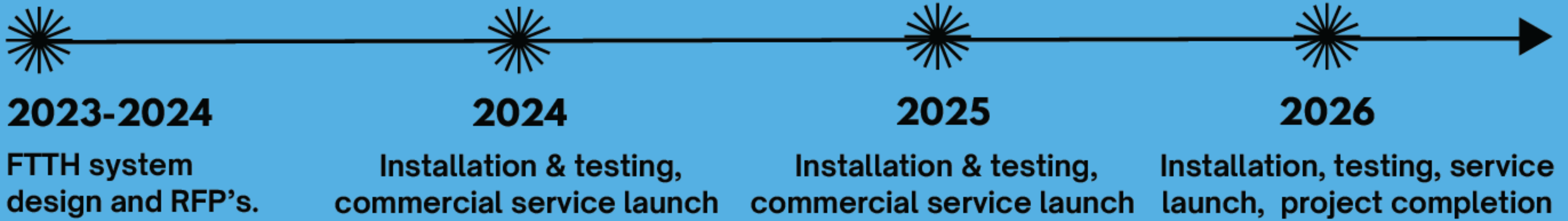
**EMPOWERING LIVES WITH
FIBER TO THE HOME & 5G**

Timeline

Fiber to the Home Project



PNCC will build a high-speed Fiber-to-the-Premises network from Kayangel to Angaur, covering over 9,000 residential, government and commercial buildings. Project Milestones include FTTH infrastructure design and RFP's, fiber-optic cable installation to all premises, system testing, and commercial service launch.



PNCC ReConnect 3 Grant Proposed FTTP Map

LEGEND:



EXISTING PNCC RADIO
TOWER



PROPOSED FIBER CABLE
FROM BSCC SHUTTER BOX
TO PNCC UE



BSCC FIBER RING, 6 DARK
FIBER TO PNCC



CUSTOMER SITE



EXISTING PNCC HUT



AIRPORT

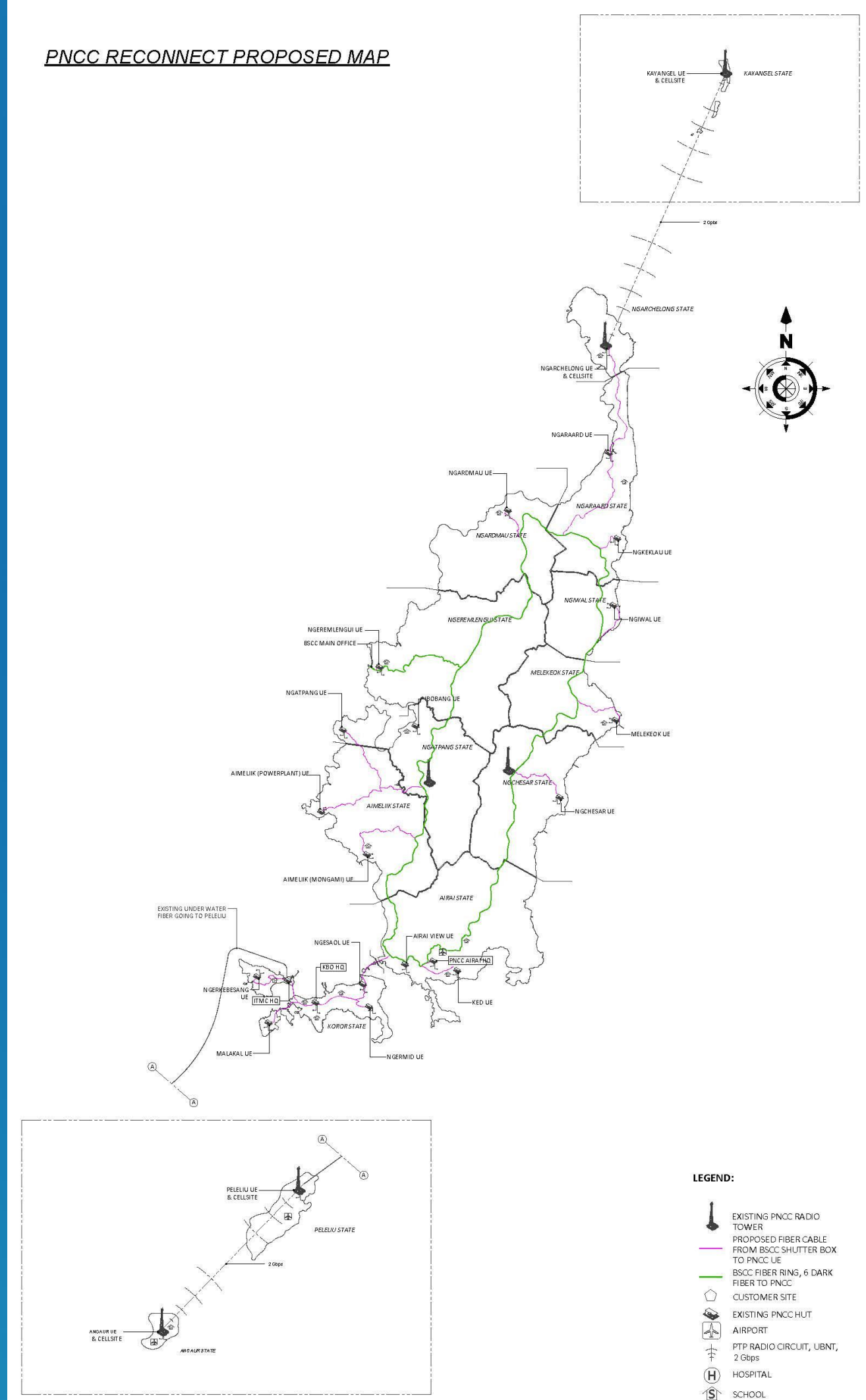
PTP RADIO CIRCUIT, UBNT,
2 Gbps

HOSPITAL



SCHOOL

PNCC RECONNECT PROPOSED MAP



WHAT IS PNCC'S 5G OPEN RAN PROJECT?

MOBILE NETWORK REPLACEMENT & UPGRADE

Replace and Expand the Mobile Network
to provide Secure, High-Speed, 5G Mobile
Data Services from Kayangel to Angaur



PNCC Mobile Network Replacement & Upgrade Project 2023-2024: \$24M

Phase 1:

Replace Mobile Core with Secure Network
Solution Based on O-Ran Architecture

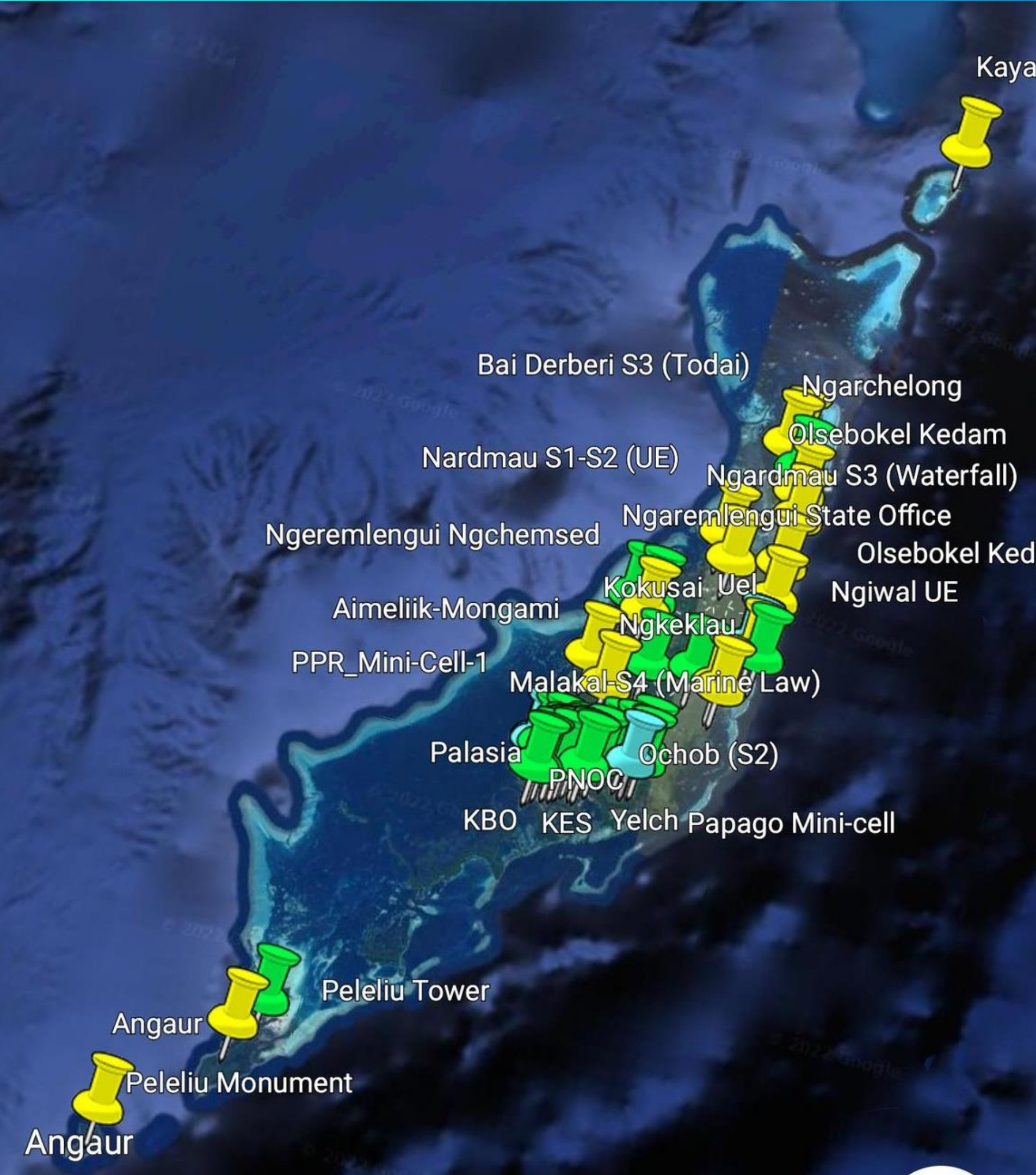
Phase 2:

Replace Existing Cellsites & upgrade all
to 5G capability (50 sites)

Phase 3:

Add 51 more sites

First Open RAN Network in the Pacific Islands

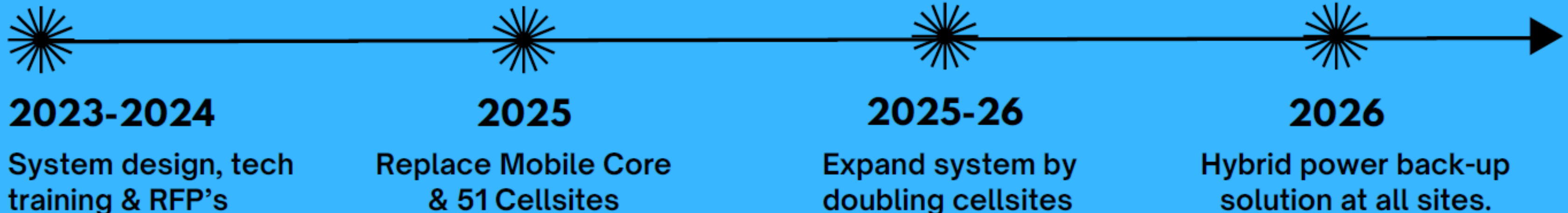


Timeline

5G O-RAN Mobile Upgrade Project



Project Milestones include system design, training, RFP's, replacement of the mobile network core with capacity for 5G, upgrade current 51 cellsites and add 50 more sites for better coverage & capacity.



Kom Kmal Mesulang Thank you!



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